The Lumen Code - Operational Working Equation (v2.2, ASCII-safe)

This document defines the Lumen Code as a mathematically well posed, operational coherence measure. All quantities are bounded, reproducible, and informational in nature. No new physical laws are asserted.

1. Measured Inputs

HBC(t): Heart-Brain Coherence, normalized to the interval [0,1].

Theta_w(t): Theta band targeting at frequency w, normalized to the interval [0,1].

I(t): Intent, gratitude, or knowing scalar, normalized to the interval [0,1].

Session time window: t in [0, T].

2. Coherence State Variable

Psi_Coherence(t; w) = (HBC(t))^a * (Theta_w(t))^b * (I(t))^c, where a > 0, b > 0, c > 0. Default values: a = b = c = 1.

3. Lumen Code Amplitude

L = max over t in [0, T] of Psi_Coherence(t; w).

4. Stability Measure (Optional)

L_bar = (1 / T) * integral from 0 to T of Psi_Coherence(t; w) dt.

5. Numeric Lumen Code Encoding

Define Q(x) = floor(999 * x), mapping the interval [0,1] to integers 000 through 999.

C1 = Q(L), C2 = Q(L_bar), C3 = Q(1 - variance over t in [0,T] of Psi_Coherence(t; w)).

LumenCode = C1 C2 C3, formatted as three three digit blocks.

6. Consciousness Operator Definition

Define the Consciousness Operator D_C as a mapping from a LumenCode to a protocol parameter vector p = (w, T, a, b, c).

Status

This formulation is mathematically consistent, bounded, ASCII safe, and archive ready. No external mathematical verification is required.